

PUBLIC MEETING FOR THE PROPOSED PLAN

INTERIM REMEDIAL ACTION

SITE 9

NAVAL AIR STATION BRUNSWICK

AT BRUNSWICK HIGH SCHOOL

JULY 14, 1994

7:00 P.M.

Head Table:

JAMES CARUTHERS, NASB, Environmental Project Manager

CMDR. THOMAS BRUBAKER, USN, Public Works Officer

**FRED EVANS, Navy Facilities Engineering Command,
Northern Division, Project Manager**

**BETH WALTER, ABB Environmental Services, Environmental
Engineer**

**ROBERT LIM, U.S. Environmental Protection Agency,
Remedial Project Manager**

**NANCY BEARDSLEY, Maine Department of Environmental
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1 PROCEEDINGS

2 CMDR. BRUBAKER: Given this small crowd, if
3 everybody can hear me, even though we went to the
4 trouble of having these guys set up a PA system, we'll
5 go without it.

6 Good evening. Welcome to tonight's public meeting
7 to discuss the Navy's proposed plan to address
8 groundwater contamination at Site 9, the Neptune Road
9 Disposal Site at the Brunswick Naval Air Station here in
10 Brunswick. I'm Commander Tom Brubaker, the Public Works
11 Officer at the air station.

12 Working closely with a lot of folks here in the
13 room tonight, and many others, we continue to make
14 progress in the remediation of the sites identified
15 under our Installation Restoration Program. Tonight
16 we're here to talk about an interim remedial action for
17 the groundwater at Site 9. At the conclusion of the
18 technical presentation, we will open the floor to
19 questions and comments from the floor.

20 As tonight's meeting is part of the official public
21 comment period for the proposed interim remedial action,
22 we ask that you limit your comments to Site 9.

23 If you have any other questions regarding any other
24 aspect of our Installation Restoration Program at the
25 base, please hold those until we've closed the formal

1 part of this meeting. We'll be happy to address those
2 afterwards. We'll have folks available to try to field
3 those questions.

4 I also, at this point, should advise you that
5 tonight's proceedings are being transcribed, because it
6 will be part of the official record at the Curtis
7 Memorial Library. The other thing that does is it gives
8 us an accurate record and an ability to respond more
9 accurately to your questions and comments.

10 Tonight I'd like to introduce the other folks that
11 are here at the table with me. To my right is Mr. Jim
12 Caruthers, who is our program manager for installation
13 restoration at the base; Ms. Beth Walter, who works for
14 ABB Environmental Services as the Navy's consultant for
15 the Installation Restoration Program here in Portland;
16 Mr. Fred Evans is our Project Manager from the Naval
17 Facilities Engineering Command, Northern Division, in
18 Philadelphia; to his left is Nancy Beardsley of the
19 Maine DEP; and to her left, Bob Lim of the U.S. EPA,
20 Region 1.

21 We anticipate tonight's presentation to take about
22 30 minutes. If you haven't already gotten a copy of the
23 briefing material for tonight, there are some available
24 on the table in the back.

25 Also, anybody who would like to be on our mailing

1 list, if you're not already on our mailing list, we have
2 a sign-up sheet on the back table. Also tonight we had
3 originally on the agenda -- it's not up there --
4 originally on the agenda, we're going to talk about
5 another initiative that's ongoing right now that might
6 possibly change how we get you, the citizen
7 stakeholders, involved in our process. It's called
8 Restoration Advisory Board. The bottom line there is
9 that it may give other folks who haven't previously had
10 an opportunity to participate, it may give them the
11 opportunity to participate in the process, which are now
12 ongoing.

13 All that said, I'd like to turn the floor over to
14 Fred Evans.

15 MR. EVANS: Thank you, Commander. I'm going to
16 explain the general process for the RI, remedial
17 investigation, FS, feasibility study, and the ROD, the
18 record of decision. We start with a remedial
19 investigation where we determine the type and the
20 distribution of the contamination by taking the soil and
21 water samples from the site and perform a risk
22 assessment which determines the potential risk to human
23 health and environment. And from the risk assessment
24 and the remedial investigation, we go into the
25 feasibility study, where we evaluate different

1 engineering alternatives and come up with a preferred
2 alternative to reduce the risk at the site

3 Following the feasibility study, we go into the
4 record of decision process, which has four main steps.
5 We have the proposed plan, which is why we're here
6 tonight. The proposed plan is currently on file at the
7 Curtis Memorial Library and is available for everybody
8 to look at. And we hold the public hearing, which we're
9 holding tonight. And the public comment period, which
10 started July 12 and runs for a minimum of 30 days.
11 Following the close of the public comment period, we've
12 got to prepare a ROD and Responsiveness Summary based on
13 the public comment. And then that gets signed by the
14 Navy and EPA to make a -- to require the Navy to follow
15 what's in the Record of Decision.

16 Based on that, I'd like to turn it over to Beth
17 Walter to provide the technical presentation.

18 MS. WALTER: Thank you, Fred.

19 As Fred mentioned, we're now at the process of the
20 public hearing describing the Navy's preferred
21 alternative for the interim remedial action at Site 9.
22 Just to familiarize people, Site 9 is located in the
23 central portion of the naval air station.

24 What we're doing here tonight is a little bit
25 different from some of the other proposals the Navy has

1 put forth in that the Navy is recommending an interim
2 action. And by that, I'd just like to stress that it's
3 not intended to be the final remedy for Site 9. And the
4 reason that the Navy is proceeding with this interim
5 action is because currently there is not enough
6 information to develop a final remedial strategy. We
7 haven't determined where the source areas or areas of
8 groundwater contamination at the site might be. Without
9 that information, we're unable to develop alternatives
10 that address the long-term groundwater contamination.

11 Also, by implementing this interim action, it
12 really does permit the Navy to conduct long-term
13 monitoring at the time site. And what the long-term
14 monitoring program will do is provide an increased data
15 base on groundwater quality at Site 9, which we're
16 hoping can help us determine some of the potential
17 source areas of contamination. And in the meantime,
18 while the long-term monitoring is going on, the Navy
19 will be conducting additional source investigations.
20 They'll be out at the site exploring other possible
21 areas where the source of groundwater contamination may
22 be.

23 As I mentioned, Site 9 is located in the central
24 portion of the base. In 1984, when the Navy first got
25 involved in officially documenting potential areas of

1 concern at the naval air station, a report was written.
2 And in this report they had identified three potential
3 areas of contamination. These were based on interviews
4 with people who worked at the naval air station and on
5 historical records.

6 The three areas were: the location of an
7 incinerator and ash disposal -- ash disposal and dump
8 area; a reported solvent burning and dumping ground area
9 right outside of Building 201; and two unnamed streams
10 that flow adjacent to Site 9.

11 During the investigations that the Navy has
12 conducted, two other areas of potential concern were
13 identified. And one of those were the septic system
14 associated with Building 201, and an old drainpipe that
15 flows along downgradient of the site -- of the ash
16 disposal area.

17 Just to briefly review the history of these areas.
18 There was no precise information on the dates of
19 operation of the incinerator, nor on the location of the
20 ash landfill or dump. And reportedly wastes were burned
21 at the incinerator and the ash transported over to the
22 dump disposal. And the waste may include solvents,
23 paint sludges and solid waste.

24 The solvent burning and dumping area was identified
25 off of an aerial photograph as a potential area of

1 concern. And based on interviews, it was reportedly
2 used to dump and burn solvents.

3 And the two unnamed streams that flow adjacent to
4 the site really drain the central portion of the naval
5 air station, and they collect that, and the groundwater
6 or the surface water then flows down and off base. And
7 a seep has been identified in the northern unnamed
8 stream.

9 The septic system was in use between 1952, when
10 Building 201 was built, and 1972, when the air station
11 went over to a sewer system, and it consists of a septic
12 tank and five cesspools.

13 And then lastly, the old drainpipe. There's a
14 42-inch drainpipe that runs along the southern boundary
15 of the ash disposal area, and it was identified as a
16 potential concern because if there were contaminants
17 disposed at that landfill, there was a potential for
18 those contaminants to flow towards this drainpipe, and
19 the drainpipe to act as a preferential pathway of
20 contaminant migration.

21 The Navy started to conduct investigations on that
22 site going back to 1988 and 1990. They had two large
23 field programs. And the purpose of those programs were
24 to understand and determine the geology and the
25 hydrology of the site; to evaluate the contaminant

1 distribution in soils, the surface water, the sediments,
2 the seeps, and in subsurface soils and ash material.
3 And as part of those sampling efforts, groundwater
4 samples, surface water, sediment, seep and soil samples
5 were collected and then analyzed.

6 In 1993 additional investigations were conducted.
7 These investigations were prompted based on comments
8 that there were some data gaps out there. It was done
9 to better evaluate and characterize the ash disposal
10 area. And this is a picture, a blown up picture of this
11 area up here.

12 This was an area that we had not, in our 1988 and
13 1990 investigations, had not really determined where
14 this ash landfill was. In 1993, the Navy went out and
15 conducted an investigation and placed 33 soil borings in
16 a grid pattern along this area, and based on the results
17 of those borings they were able to determine whether or
18 not ash was present below the ground or not.

19 The yellow area is where ash was identified, and it
20 was located between approximately 6 feet to 18 feet
21 below the ground surface. And this area matches up
22 pretty well with the area that had originally been
23 identified in that report that was written in 1984.

24 We also -- the Navy also took a look at each septic
25 system; went in and actually collected samples from the

1 septic systems to better determine whether or not that
2 was a source of groundwater contamination. And again,
3 samples were collected and analyzed.

4 The results of all three of those investigations
5 identified that the water table at Site 9 is
6 approximately 10 feet below the ground. The groundwater
7 flow is to the south southeast -- was southerly and then
8 discharges into the two streams. And the groundwater
9 moves approximately 26 feet to 130 feet per year through
10 the site, which is relatively quick.

11 The results of the analytical samples that were
12 collected and sent off-site identified the presence of
13 volatile organic compounds and inorganic compounds in
14 the groundwater downgradient of this ash disposal area
15 and also the septic system.

16 The volatile organic compounds that were detected
17 included vinyl chloride; 1,1-dichloroethane, or DCA; and
18 1,2-dichloroethene, or DCE. And these compounds, the
19 DCA and DCE, are used as industrial solvents; and vinyl
20 chloride and DCA and DCE are also degradation products
21 of other more commonly used solvents that are generally
22 used in industrial activities.

23 The inorganic compounds that were detected include
24 aluminum, cadmium, manganese and iron. These were the
25 four inorganic compounds that were detected most

1 frequently and in greater concentrations above typical
2 background concentrations.

3 Overall, what was identified was that of the 13
4 monitoring wells that were placed out there since 1988,
5 nine of the wells contained no contaminants at
6 concentrations greater than the drinking water
7 standards, or health-based criteria. Four of the wells,
8 however, did detect contaminants at concentrations
9 greater than the health-based drinking water standards.
10 And those wells are identified as the yellow -- it's not
11 really showing up too clearly -- but they're the three
12 wells downgradient of the septic system and the one well
13 located downgradient of the ash disposal. Remember, I
14 said the groundwater is flowing from the north to the
15 south.

16 And the compounds that were detected greater than
17 their drinking water standards include vinyl chloride,
18 DCE, DCA and cadmium. In addition, I mentioned the
19 other inorganic compounds. Aluminum, manganese and iron
20 were detected at concentrations greater than their
21 drinking water standards; however, the drinking water
22 standards for those compounds are based on aesthetic
23 qualities, taste and odor, and not on health-based
24 considerations.

25 The other thing that we identified was that there

1 was no defined pattern of groundwater contamination at
2 the site. And I'll just explain a little bit more what
3 we mean by that.

4 These figures are also in the handout. But the
5 Navy originally installed wells in 1988, and some of
6 those wells have been sampled up to five times. We've
7 also placed wells as recently as 1993, and those wells
8 have only been sampled once. But if you look at the
9 wells that have been sampled -- for example, in this
10 case, monitoring well 904 -- you can see that at times
11 when we went out to sample we had detections of vinyl
12 chloride that seemed to increase the next time we
13 sampled it, but then the next two times we sampled it we
14 didn't detect it at all. And we also see that with DCA
15 and DCE. And so, as a result, we're not able to go in
16 and predict with any certainty what concentrations we
17 would expect to see or where we would expect to see
18 them.

19 And I will go back and just mention that it really
20 has only been those four wells that we're seeing
21 contaminants of volatile organic compounds routinely
22 detected.

23 Also, just for -- to put some of the concentrations
24 that I'm talking about in perspective, here's a chart of
25 the compounds that I have identified; the maximum

1 concentrations that we have detected out there. And
2 then, for comparison, the federal MCL, or maximum
3 contaminant level, which is the federal drinking water
4 standard; the MCLG, which is their maximum contaminant
5 level goal; and as important is Maine's maximum exposure
6 guideline, which is a health-based criteria, that is
7 considered to be concentration in drinking water
8 considered to be present with no significant health
9 risks. So you can see that these compounds have been
10 detected in the water greater than their drinking water
11 standards.

12 Although the focus of tonight's meeting really is
13 on the groundwater at Site 9, I do want to just briefly
14 review the results of the contamination in the other
15 media, because it plays into the reason why the Navy is
16 moving forward with their interim remedial action.

17 There is no physical evidence, based on the results
18 of the 1988 or 1990 sampling events, to support a
19 solvent dumping and burning area outside of Building
20 201. I've mentioned that the septic system and
21 cesspools were sampled in 1993. Those samples contained
22 no volatile organic compounds; no vinyl chloride, no DCE
23 or DCA. The compounds were seen in the groundwater.
24 Those compounds were not detected in the soils or the
25 actual organic-rich material in the cesspools.

1 The ash samples, likewise, did not contain any of
2 the volatile organic compounds or PCBs. However, PAH
3 compounds were detected in the ash. PAH compounds are
4 compounds that you find from incomplete combustion. So
5 their presence in ash material is not surprising for us
6 to see.

7 We also detected some low concentrations of
8 pesticides. And in the surface soil samples that were
9 collected around Building 201 we detected no volatile
10 organic compounds or PCBs. We did detect some PAH
11 compounds and some low concentrations of pesticides.
12 However, the pesticide concentrations were consistent
13 with historical usage of DDT and pesticides that were
14 used in the 60's and 70's at the naval air station.

15 Surface water samples were collected. They
16 contained no vinyl chloride, DCE or DCA. However,
17 fuel-related volatile organic compounds, such as
18 benzene, toluene, ethylbenzene and xylene, were detected
19 in the surface water.

20 Sediment samples, again, did not contain compounds
21 we'd seen in the groundwater; however, PAH compounds
22 were detected.

23 And the seep samples also contained no VOCs, but
24 did contain PAHs and the inorganic compounds, as well as
25 some pesticides.

1 Combining all three of the sampling events, '88,
2 '90 and '93, some of the conclusions that we came to
3 were that vinyl chloride, DCE and DCA are detected in
4 the groundwater out at Site 9 both north and south of
5 Neptune Drive.

6 There was no clear source area or pattern of
7 groundwater contamination that we could identify.

8 The sampling results indicate that the septic
9 system, which was originally thought to be the source of
10 groundwater contamination, and the ash dump area are not
11 current sources of groundwater contamination.

12 And the contaminants are present -- drinking water
13 standards are exceeded in four of the thirteen wells
14 that have been sampled out there. And that we also
15 believe that the ash disposal area may be contributing
16 to the high inorganic compounds that we're detecting in
17 the groundwater.

18 Based on those conclusions, the Navy decided to
19 move forward with interim remedial action. Again, it is
20 stressed that it is not intended to be the final remedy
21 for Site 9. It is considered -- long-term monitoring of
22 the groundwater out at Site 9 is considered to be
23 consistent with whatever final remedy the Navy proposes
24 after collecting additional information, and it will be
25 reevaluated when additional information becomes

1 available.

2 The objectives of the remedial action are to reduce
3 the contaminant concentrations in groundwater to
4 drinking water standards; to ensure protection of human
5 health by limiting future exposure to the groundwater.
6 Currently, the groundwater at the naval air station is
7 not used for any domestic purpose. The naval air
8 station receives their water from the public water
9 supply wells. And also to implement long-term
10 monitoring while continuing to investigate source areas
11 of contaminations.

12 The components of the alternative include long-term
13 monitoring of groundwater, the surface water and
14 sediments in the two unnamed streams, and the seep. And
15 the reason for including all those media is to measure
16 the expected decrease in contaminant concentrations that
17 we expect to see.

18 The Navy will also institute institutional
19 controls, deed and land use restrictions at the site, to
20 prevent the future use of the groundwater.

21 Groundwater will be remediated through natural
22 attenuation or natural degradation processes.

23 And every five years, at a minimum, the Navy will
24 come back with the EPA and DEP and review the data that
25 they have collected.

1 The estimated cost of this alternative is \$434,000,
2 and concurrent with the activities associated with the
3 interim remedial action will be ongoing source
4 investigations.

5 The proposed remedial action commits the Navy to
6 conduct a long-term monitoring, and at a minimum, we're
7 going to see quarterly sampling over the next five
8 years. So that's 20 rounds of groundwater, surface
9 water, sediment and seep samples that will be collected
10 over the next five years.

11 It commits the Navy, the U.S. EPA and the Maine DEP
12 to conduct five-year reviews to evaluate the data and to
13 determine whether or not additional remedial actions are
14 warranted.

15 It also -- you know, as I've been saying, the Navy
16 will be conducting additional investigations at Site 9.
17 And during this time groundwater will be remediated
18 through the natural processes such as degradation, which
19 will reduce the contaminant concentrations in
20 groundwater. And the estimated time to achieve cleanup
21 concentration or drinking water standards with the
22 groundwater is between two and fifteen years.

23 The future actions related to Site 9, once this
24 interim remedial action moves forward, is that the Navy
25 will conduct additional investigations at Site 9; they

1 will implement that long-term monitoring program and
2 start to monitor groundwater, surface water, sediments
3 and the seep.

4 Based on all that information, a final remedial
5 alternative for Site 9 will be developed. And once
6 that's developed, we'll kind of go through this process
7 again. A proposed plan will be written, and a public
8 hearing and public comment period will be held to
9 solicit input from the public on what the Navy is
10 choosing to do or proposes to do for the final
11 remediation at Site 9. And then a final Record of
12 Decision will be prepared and signed.

13 And that ends the technical portion of the
14 presentation. And I'll turn the meeting back over to
15 Commander Brubaker.

16 CMDR. BRUBAKER: At this point I would offer to
17 anyone, if they needed to take a 10-minute break, we
18 could offer it to them at this time. If no one needs a
19 break, we can move forward with the question and comment
20 period.

21 (No response.)

22 I'll open the floor to questions and comments.

23 MS. LePAGE: My name is Carolyn LePage. I'm a
24 geologist with Robert Gerber, Incorporated, in Freeport,
25 Maine. We are acting as consultants for the Brunswick

1 Area Citizens for a Safe Environment. And I'm speaking
2 on behalf of the citizens' group tonight. They've asked
3 me to pass along several comments on their behalf.

4 The first is that the citizens' group will be
5 preparing and submitting written comments on the
6 proposed plan within the public comment period.

7 The second is that the citizens' group remains
8 concerned that the additional investigations conducted
9 to identify potential sources be conducted in a timely
10 fashion.

11 And the third comment is that the contaminants
12 affecting the sediments in the stream also be addressed
13 in a timely fashion.

14 CMDR. BRUBAKER: Any other questions or comments?

15 Yes, sir?

16 MR. WHITESIDE: Yes. My name is Haven Whiteside.
17 I live in Brunswick. I have just one question on a
18 technical basis. You said it would be, by natural
19 attenuation, two to fifteen years to reach drinking
20 water standards. How do you -- since the measurements
21 seem to be kind of scattered around, how do you make
22 that projection?

23 MS. WALTER: That projection was based on
24 groundwater modeling that we had performed, and also on
25 some assemblage about half-lives of chemicals that are

1 detected and their likely fate. And because there is a
2 lot of uncertainty around whether or not a chemical will
3 degrade in two years or five years, and that each site
4 has a set of unique conditions that are going to affect
5 the rate at which that chemical degrades, and that's why
6 you're seeing a range.

7 I don't really know how familiar you are with
8 groundwater modeling. Actually, two to fifteen years is
9 kind of a tight time frame for some models that we've
10 seen. I don't know if that answers your question. It
11 was based on the groundwater models that were developed
12 in conjunction with the -- I think the USGS and the U.S.
13 EPA, their approved models that are used at other
14 Superfund sites. And we've applied those models to the
15 conditions we have at Site 9. So that it's based on an
16 estimate.

17 MR. WHITESIDE: My question was based on the idea
18 that apparently you're using models in a static way.
19 You have static information, you apply the model, and
20 you project ahead. And based on your measurements, you
21 don't have any trend to put in the model. Is that
22 correct?

23 MS. WALTER: Right.

24 MR. WHITESIDE: Okay. Thank you.

25 MS. WALTER: And I think one of the things that we

1 recognize is that we don't have any trends. We haven't
2 seen any trends. As I mentioned, though, some of the
3 wells -- the data base that we have, that we're working
4 from, you know, can be considered somewhat incomplete in
5 that some of our wells have only been sampled once and
6 some have been sampled up to five times. The long-term
7 monitoring program is going to provide a data base that
8 is going to be a little bit more consistent. We'll be
9 collecting samples on a quarterly basis. We'll get
10 seasonal variations. And I think with time well begin
11 to have a data base that will be more powerful and that
12 we can apply to these models and perhaps refine our
13 estimates.

14 CMDR. BALDWIN: Commander George Baldwin out at
15 South Harpswell. Those two streams, where do they empty
16 into?

17 MS. WALTER: They eventually empty into Mere Brook.

18 MR. CARUTHERS: Yes, they eventually go through a
19 series of unnamed streams on the base, and those streams
20 discharge into the very lower portion of Mere Brook,
21 which discharges into Harpswell Cove and Harpswell
22 Sound.

23 CMDR. BALDWIN: Do we know how much contaminants,
24 sir, are flowing through those streams every year?

25 MR. CARUTHERS: These chemicals have not been

1 detected in surface water in that stream.

2 CMDR. BALDWIN: They have not been?

3 MR. CARUTHERS: They have not been.

4 A SPECTATOR: Inorganic contaminants have been?

5 MR. CARUTHERS: Yes.

6 A SPECTATOR: Inorganic contaminants have been
7 found in the stream, you're saying. I don't know if his
8 question was organic or inorganic, or both.

9 CMDR. BALDWIN: I think my question was based on
10 pure ignorance. I don't know. I was just wondering how
11 much contaminants were in those streams that were
12 flowing down through Mere Brook and then into Harpswell
13 Sound.

14 MR. CARUTHERS: Okay, let me rephrase my answer to
15 you. The two portions of the contaminants that are
16 associated with this site, the volatile organics have
17 not been detected in surface water going down through
18 there. The inorganics have been. They're always there.
19 It's just a matter of relative concentrations. The
20 concentrations that we have found on the base in our
21 studies, the concentrations of those chemicals in Mere
22 Brook, are well below drinking water standards.

23 MS. BEARDSLEY: There is also PAH contamination in
24 stream sediments that we haven't quite resolved how
25 that's going to be dealt with. But it's at levels that

1 is far greater than background.

2 CMDR. BALDWIN: And these will continue? I mean,
3 there's nothing that can be done? They will continue
4 flowing until all of the monitoring is done at the end
5 of five years or fifteen years, or whatever it may be?

6 MR. CARUTHERS: Oh, you're talking -- you're
7 getting into -- that's still streams. You're dealing
8 with a number of sources of possible and actual
9 contaminants that are flowing down through there. Site
10 9, which we're discussing here, is only one of a myriad
11 of real or potential sources that are affecting Mere
12 Brook and Harpswell Cove. And we're only talking in
13 this meeting here about the Site 9 issues.

14 CMDR. BALDWIN: Are there eight other sites that
15 are doing the same thing?

16 MR. CARUTHERS: There are -- there are 13 sites
17 altogether, but they're not all associated with Mere
18 Brook.

19 I think there's nine, if I counted right. Nine of
20 the IR sites that are associated with the Mere Brook
21 drainage area, as well as several non-IR sources of
22 contamination that are associated with Mere Brook.

23 CMDR. BALDWIN: The best and hopeful plan that you
24 have coming out of this monitoring will show a decrease
25 in these contaminants over the years? Do you hope they

1 just go away? Is that what we're looking for?

2 MR. CARUTHERS: Yes.

3 CMDR. BALDWIN: I don't have any other questions.

4 MR. WHITESIDE: Can I ask another question? The
5 report that came out said something about chromium. Was
6 that an error? A typo?

7 MS. WALTER: Do you remember -- I have the report.

8 A SPECTATOR: Isn't there a high chrome in the --

9 MS. WALTER: Yeah, there may have been --

10 MR. WHITESIDE: Here we are, Table 4-2, Risk
11 Estimates.

12 MS. WALTER: The chromium?

13 MR. WHITESIDE: Yes.

14 MS. WALTER: No, that was detected in the area
15 north of Neptune Drive in samples associated with the
16 ash landfill. So you're right, chromium has been
17 detected in the groundwater.

18 MR. WHITESIDE: Okay. The reason that I asked
19 about that is it had the highest number on this hazard
20 index in this particular table. Could you just talk
21 about that for a minute, please?

22 MS. WALTER: Right. I guess what it would mean, in
23 looking at this data, it would indicate that chromium is
24 an inorganic contaminant of concern and should have been
25 included in that. I don't know off the top of my head

1 what the drinking water standard is for chromium. So
2 I'm not sure whether it's above or below it. But the
3 Navy has recognized that the groundwater beneath Site 9
4 contains chemicals at concentrations that are not safe
5 to drink; and it's based on that fact that the
6 groundwater cannot be used for its intended use that had
7 resulted in the Navy ordering some action.

8 I agree with you on this that chromium has been
9 detected of Neptune Drive in groundwater. And like I
10 said, I will check into it. And in the public record it
11 will tell you what the drinking water standard is and
12 whether it's above or below it.

13 MR. WHITESIDE: Thank you.

14 CMDR. BRUBAKER: Any other questions or comments?

15 (No response.)

16 That closes the formal part of tonight's
17 presentation.

18 (Public meeting concluded at 7:50 p.m.)

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1 **CERTIFICATE**

2 I certify that the foregoing is a true and correct
3 transcription of my stenographic notes taken of the
4 afore-captioned matter, to the best of my skill and
5 ability.

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Harold M. Hagopian
Registered Professional Reporter

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